CLAIMS

1. A process for the preparation of sertraline hydrochloride by
   a. Suspending/dissolving sertraline base or acetate in suitable solvents
   b. Adjusting the pH of the mixture with hydrogen chloride either in anhydrous form or aqueous form at elevated temperatures ranging from 25°C to 65°C
   c. Cooling the reaction mixture
   d. isolating and drying to obtain sertraline hydrochloride.

2. A process according to claim 1, to make sertraline hydrochloride form II by
   a. Suspending/dissolving sertraline acetate in suitable solvents
   b. Adjusting the pH of the mixture with hydrogen chloride gas at elevated temperatures ranging from 40°C to 65°C
   c. Cooling the reaction mixture
   d. Isolating and drying the sertraline hydrochloride to obtain form II.

3. A process according to claim 2, wherein the cooling is done gradually over a couple of hours to bring the temperature from 60°C to 25°C-20°C.

4. A process according to claim 2 or 3, wherein the cooling is done over more than 2 hours.

5. A process according to claim 1 to make sertraline hydrochloride form III by
   a. Suspending/dissolving sertraline acetate in suitable solvents
   b. Adjusting the pH of the mixture with hydrogen chloride gas at elevated temperatures ranging between 40°C to 65°C
   c. Cooling the reaction mixture
   d. Isolating and drying the sertraline hydrochloride to obtain form III.

6. A process according to claim 5, wherein the cooling is done rapidly over a few minutes to bring the temperature from 60°C to 15°C-20°C.

7. A process according to claim 5 or 6, wherein the cooling is done in less than 1 hour.

8. A process according to claim I to make sertraline hydrochloride form IV by

a. Suspending/dissolving sertraline acetate in suitable solvents

b. Adjusting the pH of the mixture with hydrogen chloride gas at elevated temperatures ranging between 40°C to 65°C

c. Cooling the reaction mixture

d. Isolating and drying the sertraline hydrochloride to obtain from IV.

9. A process according to claim 8, wherein the sertraline acetate is suspended/dissolved in solvents such as methanol, ethanol, isopropanol, ethyl acetate, or mixtures thereof.

10. A process according to claim 8 or 9, wherein the solvent used is isopropanol.

11. A process according to claim 8, 9 or 10, wherein the cooling is done rapidly to bring the temperature from 60°C to 25°C - 20°C.

12. A process according to claim 8, 9, 10 or 11, wherein the cooling is done in from 30 minutes to 1 hour.

13. A process according to any one of claims 8 to 12, wherein the sertraline hydrochloride form IV is dried in a fluid bed drier.

14 A process according any one of claims 2 to 7, wherein the sertraline acetate is suspended/dissolved in solvents such as methanol, ethanol, isopropanol ethyl acetate, toluene or mixtures thereof.

15 A process according to any one of claims 2 to 7, wherein the solvent used is a mixture of isopropanol and toluene

16. A process according to claim 15, wherein toluene is present between 2 to 8% by

weight of the total volume of solvent.

17. A process according to any of claims 2 to 16, wherein the pH of the mixture is adjusted to a value from 1- 2.

18. A process according to claim 17, wherein the pH is adjusted at a temperature from 45°C to 65°C.

19. A process according to claim 1 to make sertraline hydrochloride form V by

a. Suspending/dissolving sertraline acetate in suitable solvents
b. Adjusting the pH of the mixture with aqueous hydrochloric acid at ambient temperatures ranging between 30°C to 25°C
c. Isolating and drying the sertraline hydrochloride to obtain form V.

20. A process according to claim 19, wherein the sertraline acetate is suspended/dissolved in solvents such as methanol, ethanol, isopropanol, ethyl acetate or water mixtures thereof.

21. A process according to claim 18, wherein the solvent used is water.

22. A process according to claim 19, 20 or 21, wherein the pH of the mixture is adjusted to a value from 1-2.

23. A process according to claim 22, wherein the pH is adjusted at a temperature from 25°C-35°C.

24. A process according to claim I to make sertraline hydrochloride Form V by

a. Suspending/dissolving sertraline base in suitable solvents
b. Adjusting the pH of the mixture with aqueous hydrogen chloride
c. Cooling the reaction mixture
d. Isolating and drying the sertraline hydrochloride to obtain form V.

25. A process according to claim 24, wherein the sertraline base is

suspended/dissolved in acetic acid.

26. A process according to claim 24 or 25, wherein the solvent used is acetic acid.

27. A process according to claim 24, 25 or 26, wherein the pH of the mixture is adjusted to a value from 1-2.

28. A process according to claim any one of claims 24 to 27, wherein the cooling is done gradually to bring the temperature from 30°C to 5°C - 0°C.

29. Sertraline hydrochloride produced by a process according to any one of claims 1 to 28.

30. Form II sertraline hydrochloride produced by a process according to any one of claims 2 to 4 or 14 to 18.

31. Form III sertraline hydrochloride produced by a process according to any one of claims 5 to 7 or 14 to 18.

32. Form IV sertraline hydrochloride produced by a process according to any one of claims 8 to 13, 17 or 18.

33. Form V sertraline hydrochloride produced by a process according to any one of claims 19 to 28.

34. A pharmaceutical composition comprising sertraline hydrochloride according to claim 29 in combination with a pharmaceutically acceptable carrier.

35. A pharmaceutical composition comprising sertraline hydrochloride Form II according to claim 30 in combination with a pharmaceutically acceptable carrier.

36. A pharmaceutical composition comprising sertraline hydrochloride Form III according to claim 31 in combination with a pharmaceutically acceptable carrier.

37. A pharmaceutical composition comprising sertraline hydrochloride Form IV according to claim 32 in combination with a pharmaceutically acceptable carrier.

38. A pharmaceutical composition comprising sertraline hydrochloride Form V according to claim 33 in combination with a pharmaceutically acceptable carrier.